

Operating Instructions

Maintenance Socket

> 8579/61



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2 General Information

2.1 Manufacturer

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2.2 Operating Instructions Information

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Subject to alterations.

3 Intended Use

The maintenance socket is an explosion-protected equipment certified for use in hazardous areas of Zones 1 and 2. It is used when non-Ex protected portable and stationary electrical equipment or plug and socket devices are needed within hazardous areas, in the absence of explosive atmosphere, e.g. during repair and maintenance work that requires hot work permission.



Design

The maintenance socket is a switch socket secured by a padlock. The entire enclosure and the connection technology fulfills the requirements of type of protection "e" increased safety. To safely disconnect the operating voltage from the non-Ex socket and signal lamp/ fuse, the rated operational voltage of the switch room of the incorporated switch has additionally been reduced to such an extent that the clearance and creepage distance within the flameproof encapsulated switching chamber also meets the requirements of the "e" increased safety.

4 General Safety Instructions

The devices must be used only for the permitted purpose. Incorrect or impermissible use or non-compliance with these instructions invalidates our warranty provision. Any alterations and modifications to the device impairing its explosion protection are not permitted. Use the device only if it is undamaged and clean.

⚠ WARNING

Installation, maintenance, overhaul and repair may only be carried out by appropriately authorised and trained personnel.

Observe the following information during installation and operation:

- Any damage can invalidate the explosion protection
- ▶ National and local safety regulations
- National and local accident prevention regulations
- ▶ National and local assembly and installation regulations (e.g. IEC/EN 60079-14)
- Generally recognized technical regulations
- ▶ Safety instructions in these operating instructions
- ▶ Characteristic values and rated operating conditions on the rating and data plates
- ► Additional instruction plates fixed directly to the device

5 Conformity to Standards

The relevant standards are listed in the EC Declaration of Conformity or IECEx Certificate of Conformity. These documents can be downloaded in the download area on the internet page www.stahl-ex.com.

6 Transport and Storage

Transport and storage are only permitted in the original packing.

7 Technical Data

Explosion protection

Gas explosion protection **ATEX IECE**x Ex d e IIC T6 (Ta = - 30 ... + 40 °C) Ex d e IIC T5 (Ta = - 30 ... + 55°C) Dust explosion protection **ATEX** ⟨ II 2 D Ex tD A21 IP66 T75°C (Ta = - 30 ... + 55°C) **IECEx** Ex tD A21 IP66 T60°C (Ta = - 30 ... + 40°C) Ex tD A21 IP66 T75°C (Ta = - 30 ... + 55°C) Certificates Gas explosion protection PTB 02 ATEX 1137 X **ATFX IECEx PTB 10.0047X IFCFx** Dust explosion protection **ATEX** PTB 02 ATEX 1137 X **IECE**x **IECEx PTB 10.0047X** Ambient temperature see Explosion protection data - 45 °C on request (internal lubrication with silicone grease) max. 415 V Rated operational voltage 63 A Rated operational current Rated insulation voltage max. 400 V Utilization category AC-3 Enclosure material polyester Connection cross-section Main contacts 16 ... 50 mm² (AWG 6 ... 1/0), finely stranded / stranded Tightening torque Main contacts 6 Nm Cable entries Cable gland 1 x M50 x 1.5, cable dia. range 23 ... 35 mm 1 x M25 x 1.5 Stopping plug Degree of protection IP66 acc. to IEC/EN 60529 Auxiliary contacts max. 2 auxiliary contact blocks of type 8080/1 (slow-action contacts) 8080/1-1: 1 NC contact / 1 NO contact Possible auxiliary contacts NO contact ON delayed 1) NO contact OFF advanced (> 20 ms before opening of the main contacts) 1) NC contact synchronising 8080/1-3: 2 NC contacts 2) 8080/1-4: 2 NO contacts 2) 1) only in the left installation slot, synchronising in the right installation slot ²⁾ synchronising in all installation slots Rated operational voltage 250 V AC / DC 400 V AC, for equal potential of both contacts 500 V AC, when 1 NC + 1 NO and the same potential of both contact is used Rated operational current max. 6 A Thermal short-circuit 10 A, tripping characteristic: gG acc. to IEC/EN 60269-1 protection Connection cross-section 1.5 ... 2.5 mm² (AWG 16 ... 14) solid / finely stranded Tightening torque 0.4 Nm



Arrangement of contact pins and terminal marking:

The example shows the 6 o'clock position.





06555E00

3P + PE 8579/61-4... 3P + N + PE 8579/61-5..

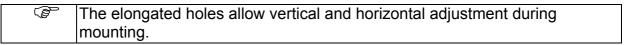
No. of poles	Frequency		Rated operational voltage		Identification colour	Earth contact sleeve
	min.	max.	min.	max.		position
3P + PE	50 and 60 Hz		100 V	300 V	yellow	4 h
8579/61-4			200 V	250 V	blue	9 h
				415 V	red	6 h
			after isolating transformer		2)	12 h
	50 Hz		380 V		red	3 h
	100 Hz	≤ 300 Hz	> 50 V		green	10 h ¹⁾
	> 300 Hz	≤ 500 Hz	> 50 V		green	2 h
3P + N + PE	50 and 60 Hz		57 / 100 V	75 / 130 V	yellow	4 h
8579/61-5			120 / 208 V	144 / 250 V	blue	9 h
		200 / 346 V	240 / 415 V	red	6 h	
	50 Hz 100 Hz ≤ 300 Hz	220 / 380 V		red	3 h	
		≤ 300 Hz	> 50 V		green	10 h ¹⁾
	> 300 Hz	≤ 500 Hz	> 50 V		green	2 h
Any no. of poles	All nomina arrangeme		voltages and/or frequencies not covered by other			1 h

Identification colour and position of earth contact sleeves relative to polarizing slot for different voltages and frequencies according to IEC/EN 60309-2:

8 Assembling and Dismantling

Make sure during installation that:

- x the insert side is at the bottom, the connection chamber is on top
- ★ the device is fixed to a plane wall using three screws (Ø 6 ... 8 mm) and suitable washers
- x all screws are tightened firmly



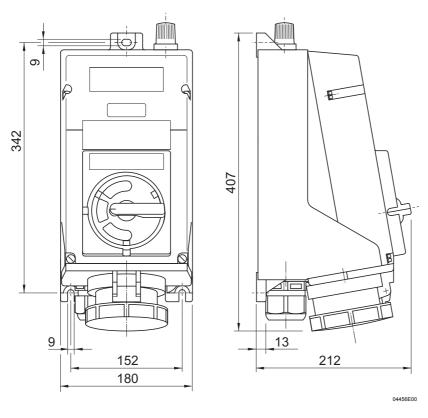


¹⁾ Not standardised but recommended preferred position

²⁾ Identification colour in accordance with voltage identification colour

9 Dimensions

Dimensional Drawings (All Dimensions in mm) - Subject to Alterations



10 Installation

Special conditions

The maintenance socket has to be secured against unauthorised use by means of a padlock. The putting into service has to be approved by the manager or his authorised representative. Approval may only be granted if absence of an explosive atmosphere during repair work is guaranteed or if the necessary measures against explosion hazard have been taken. The device can be put into service only when enabled according to RL 99/92/CE, appendix II 1.2.

Electrical connection

- ▶ The conductor must be carefully connected.
- ▶ The conductor insulation must reach to the clamping points.
- ▶ Do not damage the conductor (nicking) when removing the insulation.
- ➤ Select suitable cables to be used and appropriate way of leading them to ensure that the maximum permitted conductor temperature and the maximum permitted surface temperature is not exceeded.

Protective conductor connection

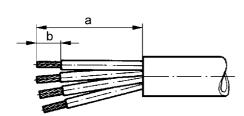
A protective conductor is always required.



Connection

- ▶ Open the cover of the terminal compartment.
- ▶ Remove the insulation from the cable ends.
- ▶ Push the cable through the cable gland into the connection chamber.
- ▶ Make sure that the clamping points are strain-relieved.
- ➤ Tighten the union nut of the cable gland, place the cover of the connection chamber carefully on top and tighten it.

Metal cable glands are included in the earthing measures.



а	b
380 mm	20 mm

09290T00

11 Putting into Service

Before putting into service

- ▶ Make sure that the device is not damaged.
- Make sure that the device is installed correctly.
- ▶ Remove any foreign objects from the device.
- ▶ Check if the cable glands and stopping plugs are tight.
- Check if screws and nuts are fastened tightly.
- Inspect the cable glands for signs of damage.
- ► Check the tightening torques.

↑ WARNING

When sealing unused holes with stopping plugs make sure that these components have an "EC Type Examination Certificate", respectively an "IECEx Certificate of Conformity".



For unused enclosure holes use R. STAHL stopping plugs, e.g. Series 8290, for unused cable entries use R. STAHL plugs, e.g. Series 8161.

↑ WARNING

- Switching on and off has to be done swiftly and completely!
- Avoid switching positions between 0 and I (ON and OFF)!

12 Auxiliary Contacts

A maximum of 2 type 8080/1 auxiliary contacts can be used.

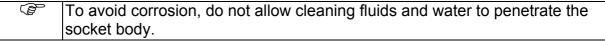
The switching function of the auxiliary contact depends on the installation slot used (see chapter "Technical Data").

13 Maintenance, Overhaul and Repair

	⚠ WARNING
Do not open when live!	

The following details must be checked during maintenance:

- X Cables are held securely in place
- X Compliance with the permitted temperatures (acc. to IEC/EN 60079)
- X Damage to the enclosure
- x Damage to the seals
- x Pollution in sleeves
- X Functioning of the signal lamp and fuse



14 Accessories and Spare Parts

<u> </u>						
Use only original R. STAHL accessories and spare parts.						
Designation	Illustration	Description	Art. no.	Weight		
					kg	
Switch insert		8544/1-31L		167239	2.200	
Plastic cable gland	05864E00	8161/5-M25-17	1 piece	138520	0.020	
		8161/5-M50-1.5	1 piece	138526	0.091	
Stopping plug	04840E00	8290/3-M25 x 1.5	1 piece	143524	0.007	
Reduction		M40-M25, polyamide, black		109380	0.018	
Glow lamp	05303E00	220 240 V E14/20	132923	0.004		
Auxiliary contact,		1 NC contact + 1 NO contact (8080/1-1)		168351	0.026	
Series 8080/1		2 NC contacts (8080/1-3)	2 NC contacts (8080/1-3)		0.026	
		2 NO contacts (8080/1-4)	2 NO contacts (8080/1-4)		0.026	
	12446E00	The switching function of the auxiliary contact depends on the installation slot used. see "Technical Data"				

15 Disposal

The national waste disposal regulations have to be observed.



16 EC-Declaration Of Conformity

EG-Konformitätserklärung

EC-Declaration of Conformity Déclaration de Conformité CE



R. STAHL Schaltgeräte GmbH • Am Bahnhof 30 • 74638 Waldenburg, Germany erklärt in alleiniger Verantwortung, declares in its sole responsibility, déclare sous sa seule responsabilité,

dass das Produkt that the product que le produit

Typ, *type*, *type*: 8579/5.-..- 8579/61-...-

Kennzeichnung, marking, marquage:

Reparatursteckdosentrenner Maintenance socket outlet Prise de courant pour reparations

C€ 0158

mit der EG-Baumusterprüfbescheinigung: under EC-Type Examination Certificate: avec Attestation d'examen CE de type: PTB 02 ATEX 1137 X (Physikalisch-Technische Bundesanstalt, Bundesallee 100, 38116 Braunschweig, Germany)

auf das sich diese Erklärung bezieht, mit den folgenden Normen oder normativen Dokumenten übereinstimmt which is the subject of this declaration, is in conformity with the following standards or normative documents auguel cette déclaration se rapporte, est conforme aux normes ou aux documents normatifs suivants

Bestimmungen der Richtlinie Terms of the directive Prescription de la directive		Nummer sowie Ausgabedatum der Norm Number and date of issue of the standard Numéro ainsi que date d'émission de la norme		
94/9/EG: 94/9/EC: 94/9/CE:	ATEX-Richtlinie ATEX Directive Directive ATEX	EN 60079-0: 2006 EN 60079-1: 2007 EN 60079-7: 2007 EN 61241-0: 2006 EN 61241-1: 2004		
2006/95/EG: 2006/95/EC: 2006/95/CE:	Niederspannungsrichtlinie Low Voltage Directive Directive Basse Tension	EN 60309-1: 1999 + A1: 2007 EN 60309-2: 1999 + A1: 2007 EN 60529: 1991 + A1: 2000		

Waldenburg, 17. Mai 2011

Ort und Datum Place and date Lieu et date J.-P. Rückgauer Leiter Entwicklung und Technik Director Design and Technology Directeur Développement et Technique

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